PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q93036

Thierry CHOLLEY, et al.

Appln. No.: 10/567,564

Group Art Unit: 1797

Confirmation No.: 6629

Examiner: Randy Boyer

Filed: January 8, 2007

For: HYDROTREATING AND OR HYDROCRAKING CATALYST OF HYDROCARBONS

AND PREPARATION THEREOF

SUBMISSION OF APPEAL BRIEF

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

An Appeal Brief is submitted herewith, and the statutory fee of \$540.00 is being remitted. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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WASHINGTON OFFICE

23373
CUSTOMER NUMBER

Date: May 23, 2011

Debodhoryaa Sengupta, Ph.D. Limited Recognition No. L0578

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

A Petition for Extension of Time for one month is submitted herewith, extending the date of response from April 21, 2011 to Monday, May 23, 2011 (Saturday, May 21, 2011 being a federal holiday). Therefore, the Appeal Brief is timely filed.

In accordance with the provisions of 37 C.F.R. § 41.37, Appellants submit the following:

Table of Contents

T	REAL PARTY IN INTEREST	3
II.	RELATED APPEALS AND INTERFERENCES	4
III.	STATUS OF CLAIMS	5
IV.	STATUS OF AMENDMENTS	6
V	SUMMARY OF THE CLAIMED SUBJECT MATTER	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564

Attorney Docket No.: Q93036

VI.	GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL	9
VII.	ARGUMENT	10
	CONCLUSION	
CI AI	MS APPENDIX	22
EVIDENCE APPENDIX		
EVID	TED PROCEEDINGS APPENDIX	20
	TED DROCHEDINGS APPENDIX	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564 Attorney Docket No.: Q93036

I. **REAL PARTY IN INTEREST**

Total Raffinage Marketing, having a business address of 24 Cours Michelet, F-92800 Puteaux, France, is the real party in interest.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564 Attorney Docket No.: Q93036

RELATED APPEALS AND INTERFERENCES II.

Appellants, Appellants' representative, and the Assignee are not aware of any prior or pending appeals, interferences or judicial proceedings that are related to, directly affect, or would be directly affected by, or have a bearing on the Board's decision in the present appeal.

Attorney Docket No.: Q93036 APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564

STATUS OF CLAIMS III.

Claims 1-5, 11-13 and 17-23 are pending in the present application.

Claims 6-10 and 14-16 are canceled.

Claims 1-5, 11-13 and 17-22 are rejected.

Claim 23 is withdrawn from consideration.

Appln. No.: 10/567,564

IV. STATUS OF AMENDMENTS

The present claims were last amended in the Amendment Under 37 C.F.R. § 1.116 filed November 19, 2010.

Claim 1 was amended to incorporate the subject matter of Claim 10.

Claim 11 was amended to depend from Claim 1.

Claims 6-10 and 14-16 were canceled.

The Amendment filed November 19, 2010, was entered, as indicated in the Advisory Action dated December 8, 2010.

There are no outstanding claim amendments.

Appln. No.: 10/567,564

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 1 is the only independent claim on appeal (independent Claim 23 is withdrawn from consideration at this time).

The invention of Claim 1 is directed to a hydrocarbon hydroconversion catalyst with a base of refractory oxides and group VIB and VIII metals from the Periodic Table of the Elements. (Page 3, lines 12-15). The presently claimed catalyst comprises a medium with a base of at least one refractory oxide selected from the group consisting of alumina, silica and/or silica-alumina (page 8, lines 14-15), and the at least one refractory oxide further contains 0.1 to 10% by weight of at least one metal from group VIII, and 1 to 20% by weight of at least one metal from group VIB. (Page 8, lines 16-17). The presently claimed catalyst also contains at least one organic compound with at least two oxime groups of formula >C=NOR₁, (page 6, line 21), where R₁ is chosen from among a hydrogen atom, alkyl, allyl, aryl, alkenyl or cycloaliphatic groups, and combinations thereof, and one or more of said groups can be substituted by at least one electron donor group. (Page 3, line 19 to page 4, line 3).

"Traditional" refractory oxide medium-based catalysts containing combinations of metals from groups VIB and VIII are used in refineries in new or regenerated condition for hydrocracking, but it has been difficult to increase their desulfidation and/or denitrogenation activity levels significantly. (Page 1, lines 15-19). The presently claimed invention is a substantial improvement over "traditional" refractory oxide medium-based catalysts (e.g., catalysts A and B of Examples I and II, which do not contain organic compounds

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

Attorney Docket No.: Q93036

having at least two oxime groups), because the presently claimed catalyst has improved

desulfidation and/or denitrogenation performance. (Page 3, lines 12-15). The improvement in

desulfidation and/or denitrogenation performance of the presently claimed catalyst is due to the

composition of the catalyst, i.e., the combination of a base of refractory oxides, group VIB and

VIII metals, and an organic compound containing two oxime groups. (Page 13, Table II).

8

Appln. No.: 10/567,564

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A first issue on appeal is whether the Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. § 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly obvious over Vangermain (U.S. Patent No. 3,526,645) as evidenced by Maskill (Howard Maskill, Mechanisms of Organic Reactions, New York, Oxford University Press Inc., 1996, p.62).

A second issue on appeal is whether the Office improperly rejected Claims 1, 5, 11-13, 17-19, 21 and 22 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson (U.S. Patent No. 4,693,991) in view of Mansfield (U.S. Patent No. 5,648,305).

A third issue on appeal is whether the Office improperly rejected Claims 2-4 and 20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield and Maskill.

Appln. No.: 10/567,564

VII. ARGUMENT

Rejections of Record

- A. Claims 1-5, 11-13, 17-20 and 22 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly obvious over Vangermain (U.S. Patent No. 3,526,645) as evidenced by Maskill (Howard Maskill, Mechanisms of Organic Reactions, New York, Oxford University Press Inc., 1996, p.62).
- **B.** Claims 1, 5, 11-13, 17-19, 21, and 22 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson (U.S. Patent No. 4,693,991) in view of Mansfield (U.S. Patent No. 5,648,305).
- C. Claims 2-4 and 20 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield and Maskill.

Patentability of Claim 1, and Dependent Claims Thereof

Claim 1 is directed to a hydrocarbon hydroconversion catalyst, comprising a medium with a base of at least one refractory oxide, alumina, silica and/or silica-alumina containing (1) 0.1 to 10% by weight of at least one metal of group VIII, (2) 1 to 20% by weight of at least one metal of group VIB, and (3) at least one organic compound with at least two oxime groups of the formula: > C=NOR₁, where R₁ is chosen from among a hydrogen atom, alkyl, allyl, aryl, alkenyl or cycloaliphatic groups, and combinations thereof, and one or more of these groups can be substituted by at least one electron donor group. The subject matter of Claim 1 is not disclosed or suggested in any of the references cited by the Examiner, alone or in combination, as established below.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

A. The Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. § 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly obvious over Vangermain as evidenced by Maskill, because Vangermain does not teach each and every element of Claim 1, and Maskill does not cure this deficiency.

Vangermain does not anticipate Claim 1, or dependent claims thereof, at least because Vangermain does not teach each and every element of Claim 1. Additionally, Vangermain does not render obvious Claim 1, or dependent claims thereof, nor does Maskill cure the above-discussed deficiencies in Vangermain.

1. The Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. §102(b) as allegedly anticipated by Vangermain, as evidenced by Maskill, because multiple references cannot be relied upon in making a rejection under 35 U.S.C. § 102.

The Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. § 102(b) as allegedly anticipated by Vangermain in view of Maskill, because only one reference should be used in making a rejection under 35 U.S.C. § 102. MPEP § 2131.01. Multiple references may be used, when the extra references are cited to:

- (A) Prove the primary reference contains an "enabled disclosure;"
- (B) Explain the meaning of a term used in the primary reference;
- or
 (C) Show that a characteristic not disclosed in the reference is inherent.

Id.

At page 4 of the Office Action dated August 19, 2010, the Examiner admits that Vangermain does not explicitly disclose wherein the oxime is formed by the reaction of an amine and a carbonyl compound. The Examiner relies on Maskill to cure this deficiency. The Examiner states that Maskill teaches that "the reaction of hydroxylamine and a ketone is known

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

to produce oximes." However, Maskill is not relied upon to prove that Vangermain contains an enabled disclosure, to explain the meaning of a term in Vangermain, or to show that a teaching relied upon by the Examiner is inherently disclosed in Vangermain.

Accordingly, the rejection of Claims 2-4, 9-14 and 20 under 35 U.S.C. § 102(b) is improper, and should be withdrawn at least for this reason.

The §§ 102(b)/103(a) rejection of Claims 1-5, 11-13, 17-20 and 22 based on Vangermain as evidenced by Maskill is also improper for the reasons discussed below.

2. The Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. §102(b) as allegedly anticipated by Vangermain, as evidenced by Maskill, because Vangermain does not teach or suggest each and every element of Claim 1, and .

In order to anticipate a claim under 35 U.S.C. § 102, a reference must teach or suggest each and every element of the claim. MPEP § 2131.

The Examiner argues that Vangermain discloses the use of molybdenyl acetylacetonate (compound A) (a group VI metal) with nickel dimethylglyoxime (compound B) (a group VIII metal) at column 4, lines 25-30 and 43, which anticipates Claim 1.

Applicants respectfully disagree with the Examiner's characterization of Vangermain, and his reliance on the references to render Claim 1 unpatentable.

The presently claimed catalyst comprises a medium with a base of at least one refractory oxide selected from the group consisting of alumina, silica and silica-alumina, wherein the at least one refractory oxide contains 0.1 to 10% by weight of at least one metal of group VIII, and

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564

1 to 20% by weight of at least one metal of group VIB by weight on the Period Table of the Elements, and at least one organic compound with at least two oxime groups of the formula >C=NOR₁. In other words, the presently claimed catalyst requires a base refractory oxide, as claimed, which contains (1) at least one metal of group VIII, (2) at least one metal of group VIB, i.e., the medium contains the refractory oxide and at least two metals, and (3) at least one organic compound with at least two oxime groups. In other words, the presently claimed catalyst has three basic components as part of the refractory oxide base.

At column 3, lines 29-34, Vangermain discloses that

[s]uitable catalyst systems comprise (A) compounds of the metals of Subgroups IV to VI of the Periodic Table, particularly vanadium, molybdenum, tungsten, titanium, zirconium, and tantalum, and, (B) compounds of the metals of Group VII or VIII of the Periodic System, particularly manganese, iron, cobalt and nickel.

In other words, Vangermain discloses the combination of only two components - any one of compounds A listed at the bottom of column 3 with any one of compounds B listed at the top of column 4. The list at column 4, lines 30-53 that the Examiner relies on only exemplifies possible combinations of compound A and compound B, i.e., a combination of only two components.

In particular, the Examiner relies on the combination of any one of the compounds listed at columns 3 and 4, in combination with nickel dimethylglyoxime (column 4, line 43) to teach all of the claimed elements. Applicants respectfully disagree for the following reasons.

First, Vangermain discloses at least thirty six (36) examples of compounds A and B at columns 3 and 4, giving rise to thousands of possible combinations of A and B compounds.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

Although molybdenyl acetylacetonate is disclosed as a preferred example of compound A, there are still hundreds of combinations possible between molybdenyl acetylacetonate and the examples of compound B. The Examiner has provided no motivation for choosing nickel dimethylglyoxime from the examples of compound B. In fact, the Examiner is applying impermissible hindsight in selecting nickel dimethylglyoxime from the list at column 4, lines 31-53, improperly relying on the elements of Appellants' Claim 1 as a guide for the selection.

Second, even if *arguendo*, compound A and compound B of Vangermain were to be combined, as the Examiner suggests, the resulting composition would still only include two components - a compound A having a metal selected from Groups IV and VI and a compound B having a metal selected from Groups VII and VIII. Vangermain does not teach or suggest the addition of another organic compound (containing at least two oxime groups) in addition to compound A and compound B. Thus, clearly, the composition of Vangermain would <u>not</u> include a base refractory oxide, as claimed, which contains (1) at least one metal of group VIII, (2) at least one metal of group VIB, i.e., the medium contains the refractory oxide and at least two metals, <u>and</u> (3) at least one organic compound with at least two oxime groups.

Therefore, Vangermain does not teach or suggest each and every element of Claim 1, and the Office improperly rejected Claim 1, and dependent claims thereof under 35 U.S.C. § 102(b) as allegedly anticipate by Vangermain.

It is noted that dependent Claim 21, directed to *in situ* formation of the organic compound, was not rejection over Vangermain.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

3. Vangermain as evidenced by Maskill does not render Claim 1 obvious under 35 U.S.C. § 103(a), because Vangermain does not teach or suggest each and every element of Claim 1, and this deficiency is not cured by Maskill.

A *prima facie* showing of obviousness requires (1) a suggestion or motivation in the cited references, or in the knowledge of one of ordinary skill in the art, to modify the references or to combine the teachings of the references, (2) a reasonable expectation of success, and (3) a teaching or suggestion of all the claimed limitations. MPEP §§ 2143.01-2143.03.

As discussed above in Sect. (A)(1), Vangermain does not teach or suggest a base refractory oxide, as claimed, which contains (1) at least one metal of group VIII, (2) at least one metal of group VIB, i.e., the medium contains the refractory oxide and at least two metals, and (3) at least one organic compound with at least two oxime groups. Thus, no *prima facie* case of obviousness has been established.

The working Examples of the present application demonstrate the advantages of the presently claimed invention, based on the presence of the organic compound containing at least two oxime groups. Working Example 1 uses an *ex situ* method to combine a commercial catalyst A, containing 3% Co by weight and 10% Mo by weight in an alumina medium, with dimethylglyoxime to form catalyst C_i. (Catalyst C_i' also discussed in the Examples is similar to catalyst C_i, but is prepared using an *in situ* method). The catalyst of working Example 2 is the "best performing catalyst" (page 11, lines 18-19) that was commercially available, i.e., catalyst B, which is a Co/Mo catalyst in alumina. In calculating the properties of the presently claimed catalyst, Catalyst A was used as a reference catalyst, and the reference temperatures T_{HDS} and

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

T_{HDN} for desulfidation and denitrogenation, respectively, correspond to the temperatures required to reach 98% desulfidation and 50% denitrogenation.

As shown in Table II of the specification (reproduced below), catalysts C_i and C_i ' have dehydrogenation and denitrogenation activity levels that are <u>significantly higher</u> than those of the traditional catalyst A. Moreover, the dehydrogenation activity of catalysts C_i and C_i ' is comparable to the "best performing catalyst" available on the market, i.e., catalyst B, and the denitrogenation activity is <u>significantly greater</u> than the denitrogenation activity of catalyst B. The improvement in the denitrogenation activity of catalysts C_i and C_i ' over the "traditional" or "best available" catalysts is also a guarantee of the stability of the C_i and C_i ' catalysts over time, because nitrogen is a deactivation factor for hydrotreatment catalysts.

Table II

Catalyst	A	C _i	C _i '	В
HDN	T _{HDN}	- 40° C	- 35° C	- 25° C
HDS	T _{HDS}	- 23° C	- 21° C	- 22° C

Therefore, due to the absence of the organic compound having at least two oxime groups, as presently claimed, Vangermain does not teach or suggest each and every element of the catalyst of Claim 1, and the advantageous properties associated with it. Thus, the Office has not established a *prima facie* case of obviousness, and alternatively, any such position is effectively rebutted by the evidence on record. Moreover, Maskill does not cure the above-discussed deficiency in Vangermain.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564

Accordingly, Claim 1, and dependent claims thereof, were improperly rejected under 35 U.S.C. § 103(a) as allegedly obvious over Vangermain as evidenced by Maskill.

4. Additional disclosures of Vangermain relied upon by the Examiner do not render Claim 1 patentable, because Vangermain does not teach or suggest each and every element of Claim 1.

The Examiner notes that at column 5, lines 25-27, Vangermain discloses that "[t]he catalyst system can be used in amounts varying within very wide limits as long as a catalytic quantity is employed" and at column 5, lines 29-33, Vangermain further discloses that "[l]ikewise, the molar ratio of (A) the metallic compound of Subgroups IV to VI (to be considered the oxygen transmitter) and (B) the metallic compound of Subgroups VII to VIII, to be considered the redox catalyst, can be widely varied." The Examiner also notes that at column 5, lines 2-3, Vangermain discloses that "[t]he catalyst can. . . be present in solution, suspension, or on support materials. . . "

Irrespective of any of the above disclosures in Vangermain relied upon by the Examiner, since Vangermain does not teach the combination of three different components, as discussed above, Claim 1 is not anticipated, or rendered obvious, based on the above features identified by the Examiner.

In view of the above, the Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. § 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly obvious over Vangermain, and the rejections should be withdrawn.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

B. The Office improperly rejected Claims 1, 5, 11-13, 17-19, 21, and 22 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson (U.S. Patent No. 4,693,991) in view of Mansfield (U.S. Patent No. 5,648,305), because Mansfield does not teach or suggest an organic compound having two oxime groups.

As noted in Sect. (A)(3), a *prima facie* showing of obviousness requires a teaching or suggestion of all the claimed limitations.

At page 6 of the Office Action dated August 19, 2010, the Examiner admitted that Bjornson does not explicitly disclose that Bjornson's catalyst contains an oxime compound. The Examiner relied on Mansfield to cure this deficiency in Bjornson. The Examiner noted that at column 4, lines 36-47, Mansfield discloses the use of oximes having the same chemical formula as found in present Claim 1.

Applicants respectfully disagree with the Examiner's characterization of Mansfield.

First, Mansfield discloses that any one of hydrazine, oxime, hydroxylamine, erythorbic acid, and mixtures thereof, may be used to improve the effectiveness of a process catalyst.

Therefore, a person of ordinary skill in the art would not be motivated to specifically select oximes from the list of disclosed compounds.

Second, even if *arguendo*, a person of ordinary skill were to look to Mansfield to select the oxime compound, the presently claimed invention would not be achieved, because the oxime of Mansfield is distinguishable from the presently claimed oxime compound, as established below.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

Claim 1 includes the limitation that the at least one organic compound contains at least $\underline{\text{two}}$ oxime groups of the formula >C=NOR₁. In other words, there are at least two >C=NOR₁ groups present in the organic compound of Claim 1.

$$R_2$$
 R_1 R_2 N OH ,

In comparison, the formula in Mansfield relied upon by the Examiner is N—OH where R_1 and R_2 are selected from hydrogen, lower alkyl groups of 1-8 carbon atoms and aryl groups. Neither R_1 nor R_2 is defined as a group having the formula $>C=NOR_1$. Thus, the compound of Mansfield has only one oxime group. In fact, the exemplary compound of

Mansfield is a methyl ethyl ketoxime, having the formula N—OH, which also has only one oxime group. See, e.g., column 4, lines 48-49. Thus, while the oxime compound of Mansfield may have a similar structure as the oxime compound of Claim 1, the two compounds are distinguishable because the presently claimed oxime compound has two oxime groups, but the Mansfield oxime compound has only one oxime group.

In view of the above, the combination of Bjornson and Mansfield does not teach or suggest all of the claimed elements, and thus, the Office has failed to establish a *prima facie* case of obviousness.

Accordingly, the Office improperly rejected Claims 1, 5, 11-13, 17-19, 21, and 22 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield, and the rejection should be withdrawn.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

C. The Office improperly rejected Claims 2-4 and 20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield and Maskill, because Mansfield does not teach an organic compound containing at least two oxime groups.

The Office improperly rejected Claim 2-4 and 20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield and Maskill, because the combination of Bjornson, Mansfield and Maskill does not teach or suggest all of the claimed elements.

As discussed in Sect. (A)(3), a *prima facie* showing of obviousness requires a teaching or suggestion of all the claimed limitations. Moreover, as discussed in Sect. (B) above, neither Bjornson nor Mansfield teaches or suggests an organic compound having two oxime groups. Maskill does not cure this deficiency in Bjornson and Mansfield. Therefore, the applied combination of Bjornson, Mansfield and Maskill, also fails to render obvious the hydrocarbon hydroconversion catalyst of Claim 1. Claims 2-4 and 20 are dependent from Claim 1, thereby incorporating all of the elements of Claim 1. Accordingly, the combination of Bjornson, Mansfield and Maskill also fails to render obvious the hydrocarbon hydroconversion catalyst of Claims 2-4 and 20.

In view of the above, Claims 2-4 and 20 were improperly rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield and Maskill, and the rejection should be withdrawn.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

Attorney Docket No.: Q93036

VIII. <u>CONCLUSION</u>

The statutory fee pursuant to 37 C.F.R. §§ 41.37(a) and 1.17(c) is being remitted. The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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23373

CUSTOMER NUMBER

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Respectfully submitted,

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Appln. No.: 10/567,564

CLAIMS APPENDIX

Claims 1-5, 11-13 and 17-22 are on appeal (Claim 23 is withdrawn from consideration), and the claims are as follows:

1. (previously presented): A hydrocarbon hydroconversion catalyst, comprising a medium with a base of at least one refractory oxide selected from the group consisting of alumina, silica and silica-alumina, wherein the at least one refractory oxide contains 0.1 to 10% by weight of at least one metal of group VIII, and 1 to 20% by weight of at least one metal of group VIB by weight on the Period Table of the Elements; and at least one organic compound with at least two oxime groups of the formula:

$$> C=NOR_1$$
 (I)

where R_1 is chosen from among a hydrogen atom, alkyl, allyl, aryl, alkenyl or cycloaliphatic groups, and combinations thereof, and one or more of said groups can be substituted by at least one electron donor group.

2. (previously presented): The catalyst described in claim 1, wherein the organic compound is the result of the reaction of an amine of formula (II) below

$$N - O - R_1$$
 (II)

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

in which R₁ is chosen from among a hydrogen atom, alkyl, allyl, aryl, alkenyl or cycloaliphatic groups, and combinations thereof, and one or more of said groups can be substituted by an electron donor group, with a carbonyl compound of formula (III) below

$$R_3 = C = O$$
 (III)

where R₃ and R₄, which are either identical to or different from one another, are chosen from among hydrogen, for only one of them, linear, ramified or cyclic alkyl, aryl, allyl or alkenyl groups, and combinations thereof, which themselves can be substituted by electron donor groups.

- 3. (previously presented): The catalyst described in claim 2, wherein the amine of formula (II) is hydroxylamine.
- 4. (previously presented): The catalyst described in claim 2, wherein the carbonyl compound of formula (III) is chosen from among carbonyl compounds that are naturally present in a hydrocarbon charge that is the result of the distillation of crude oil, or ketones and aldehydes.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Appln. No.: 10/567,564

Attorney Docket No.: Q93036

5. (previously presented): The catalyst described in claim 1, wherein said organic compound has a principal carbonaceous chain of 1 to 40 carbon atoms that is linear, ramified or partially or completely cyclic, that can be interrupted by heteroatoms chosen from among sulfur, nitrogen or oxygen, and the carbon atoms can be substituted by a hydrogen atom, alkyl or aryl groups, at least one oxime group, at least one hydroxyl, sulfide or polysulfide group, a thiol, thioacid, thioether or thioester group, sulfone or sulfoxide groups, amine, amide or imine groups, carboxyl, ether or ester groups, ketone or aldehyde groups, nitrate groups, phosphines or any other group with a free electron pair.

- 6. (canceled).
- 7. (canceled).
- 8. (canceled).
- 9. (canceled).
- 10. (canceled).

Appln. No.: 10/567,564

11. (previously presented): The catalyst described in claim 1, wherein said organic compound is chosen from among dioximes and polyoximes comprising one or more alkyl, aryl, alkylaryl and arylalkyl groups.

- 12. (previously presented): The catalyst described in claim 11, wherein said organic compound is chosen from among glyoxime, monoalkylglyoximes, dialkyloximes and polyoximes with carbonaceous chains including 1 to 10 carbon atoms that tolerate hydrogen and alkyl, aryl, alkylaryl and arylalkyl groups.
- 13. (previously presented): The catalyst described in claim 12, wherein said compound is dimethylglyoxime.
 - 14. (canceled).
 - 15. (canceled).
 - 16. (canceled).
- 17. (previously presented): The catalyst described in claim 1, comprising at least 0.001 mole of said organic compound per mole of metal from groups VIB and VIII.

Appln. No.: 10/567,564

18. (previously presented): The catalyst described in claim 17, comprising from 0.001 to 10 moles of said organic compound.

- 19. (previously presented): A process for preparing the catalyst described in claim 1, comprising contacting a catalyst in a medium of a base of at least one refractory oxide, at least one metal of group VIII and at least one metal of group VIB with the organic compound of claim 1, as a gas, diluted in a solvent, and/or in a hydrocarbon charge, to form the catalyst of claim 1.
- 20. (previously presented): The process described in claim 19, wherein said organic compound is a synthesized compound, obtained by reacting a carbonyl compound of formula (III), which may or may not be contained in the hydrocarbon charge being processed, with an amine of formula (II), by maintaining the mixture at a temperature between room temperature and 100° C, under pressure that is at least equal to atmospheric pressure.
- 21. (previously presented): The process described in claim 19, wherein said organic compound is prepared *in situ* in a hydroconversion reactor, in the hydrocarbon charge being processed.
- 22. (previously presented): The process described in claim 19, wherein the organic compound is prepared *ex situ*, and then deposited or impregnated on the catalyst.

Appln. No.: 10/567,564

23. (withdrawn): A hydrocarbon hydrotreatment and/or hydrocracking process, after in situ or ex situ sulfidation of a catalyst of claim 1 without said organic compound, using at least one sulfide compound chosen from among hydrogen sulfide, sulfur, CS₂, mercaptans, sulfides

and/or polysulfides or hydrocarbon fractions with a boiling point of less than 400° C containing

sulfur compounds, or other compounds with a sulfidizing effect, comprising

contacting said catalyst with the organic compound of claim 1 in the form of a gas or in diluted form in a solvent, and

passing a hydrocarbon charge to be hydrotreated and/or hydrocracked over said catalyst,

wherein the organic compound can be provided as an additive of the hydrocarbon charge

being converted, in addition to or in lieu of contacting the catalyst with compound in the form of

a gas or in diluted form in a solvent.

27

Attorney Docket No.: Q93036 APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564

EVIDENCE APPENDIX

No additional evidence was submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 during the prosecution of the present application.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37 Appln. No.: 10/567,564 Attorney Docket No.: Q93036

RELATED PROCEEDINGS APPENDIX

As stated in Section II above, Appellants, Appellants' representatives, and the Assignee are not aware of any prior or pending appeals, interferences or judicial proceedings.